REMARKS

Claims 1-6, 8-14 and 16 are pending in this application. Claims 1, 2, 9 and 10 have been amended herein.

The amendments to the claims are made for clarity, as discussed below.

Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The rejection is overcome by the amendments to the claims.

In the Office action, the Examiner indicates that the rejection could be overcome by replacing "developing machine" with –developer support–, based on the disclosure on page 11, lines 9-12 and 20-29. Applicants have amended claims 1 and 9 to replace "developing machine" with –developer support–, as suggested by the Examiner.

The Examiner also states that the claims "are indefinite because it is unclear how the initial requirement of a visualizing to form a multicolor toner image from a latent image relates to the 'each monochromatic color toner image.'" In the amendments to claims 1 and 9, Applicants have clarified this recitation by amending the phrase "whereby each monochromatic color toner image is formed by a mutually independent developing step" to "whereby monochromatic color toner images are formed by mutually independent developing steps–.

Claims 2 and 10 have been amended for clarity by deleting the recitation of "the former" and by amending the claims to recite "first particles" and "second particles".

Reconsideration of the rejection is therefore respectfully requested.

Claims 1-6, 8-14 and 16 are rejected under 35 U.S.C. 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ugai et al. (U.S. Patent No. 5,698,354).

Reconsideration of the rejection is respectfully requested. In requesting reconsideration of the rejection, Applicants reiterate their arguments made in the Amendment dated September 23, 2002.

Specifically, as recited in claims 1 and 9, the present invention is characterized by using a higher amount (1.5 to 10.0 parts by weight) of an external additive in a contact-type one component developer, thereby preventing degradation of the toner.

Contrary to this, Ugai et al. teaches use of first and second toners having shape factors of SF-1 (100 to 180) and SF-2 (100 to 140), thereby broadening the latitude of the transfer bias, along with excellent lubricity and prevention of retransfer of the toner image (column 5, line 33, to column 6, line 42).

Ugai et al. teaches the use of an external additive; however, its object is to improve the toner fluidity. To attain this object, as is disclosed in column 18, lines 10 to 55, this external additive is preferably hydrophobic and has a hydrophobicity of not less than 60%.

With regard to the amount of the external additive, Ugai et al. teaches only that the amount is preferably 0.1 to 5 parts by weight (column 18, lines 56 to 64). The reference is silent concerning use of an increased amount of the external additive, because Ugai et al. is not directed to solving the problems solely caused in the contact type developing process. This is because Ugai et al. discloses

both contact and non-contact processes.

Applicants note that a level of the stress applied to a tone during development is different between contact type and non-contact type developing processes, and generally a higher level of stress is applied to the toner in the contact type developing process in comparison to the non-contact type process. For example, a mechanical stress is created by a contact of the photosensitive drum with a developing sleeve in the contact-type process, while such a stress is not created in a non-contact type process. In particular, the mechanical stress can be increased when a white-rich image is developed, because unused toner is retained on the developing sleeve and thus the deposited toner is repeatedly contacted with the drum.

Another stress is an electrical stress represented by an intensity of electric field, and a higher intensity electric field is observed in a contact type process in comparison to a non-contact type process. This is because the gap between the photosensitive drum and the development sleeve is about 10 to 40 μm (corresponding to toner thickness), in the contact type process, whereas that of the non-contact type process is about 300 μm. Apparently, a highly intense electrical stress can be applied to the toner in the contact type process. For example, an intensity of electric field of 17.0 kV/cm is observed at a gap of 30 μm under application of the potential difference of 500 V, but the intensity is reduced to 1.7 kV/cm at a gap of 300 μm.

Again, reconsideration of the rejection of claims 1-6, 8-14 and 16 under 35 U.S.C. 102(b) as anticipated by, or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ugai et al. (U.S. Patent No. 5,698,354) is respectfully requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

Attached hereto is a marked-up version of the changes made by the current amendment. The attached page is captioned "**Version with markings to show changes made**."

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, WESTERMAN & HATTORI, LLP

Daniel A. Geselowitz, Ph.D.
Agent for Applicants
Reg. No. 42,573

DAG/plb
Atty. Docket No. **001527**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930

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Enclosures: Version with markings to show changes made

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend claims 1, 2, 9 and 10 as follows:

1. (Three Times Amended) A method for the formation of a color image which comprises the steps of forming an electrostatic latent image in accordance with an electrophotographic process, visualizing said electrostatic latent image by a developer transported by a ~~developing machine~~ developer support to form a multicolored toner image whereby ~~each~~ monochromatic color toner ~~image is~~ images are formed by a mutually independent developing ~~step~~ steps comprising a contact type non-magnetic one-component developing method, and superposing then the resulting monochromatic toner images with one another to form a multicolored toner image, and in which method a toner used in each developing step contains an external additive, the addition amount of the external additive to a non-added toner containing no external additive is within the range of 1.5 to 10.0 parts by weight on the basis of 100 parts by weight of said non-added toner, and the aggregation degree of said toner is within the range of 30 to 80%, and the change ratio of the aggregation degree satisfies the following formula:

$0.8 \leqq$ (initial aggregation degree)/(aggregation degree after 20 hours of no-load revolution of developing roller ~~of the developing machine~~ used as the developer support) $\leqq 1.2$; and wherein said developer is a nonmagnetic one-component developer.

2. (Amended) A color image formation method according to claim 1 wherein a mixture of first particles having a mean particle diameter of 30 to 100 nm and second particles having a mean particle diameter smaller than ~~the former~~ that of the first particles is used as said external additive.

9. (Three Times Amended) A method for the formation of a color image which comprises the steps of forming an electrostatic latent image in accordance with an electrophotographic process, visualizing said electrostatic latent image by a developer transported by a ~~developing machine~~ developer support to form a multicolored toner image whereby ~~each~~ monochromatic color toner ~~image is~~ images are formed by a mutually independent developing ~~step~~ steps comprising a contact type non-magnetic one-component developing method, and then superposing the resulting monochromatic toner images with one another to form a multicolored toner image, and in which method a toner used in each developing step contains an external additive, the addition amount of the external additive to a non-added toner containing no external additive is within the range of 1.5 to 10.0 parts by weight on the basis of 100 parts by weight of said non-added toner, and the change ratio of the electrostatic charge amount of said toner on an image support for forming and visualizing said electrostatic latent image satisfies the following formula:

$1.0 \leqq$ (initial charge amount)/(charge amount after 20 hours of no-load revolution of developing roller ~~of the developing machine~~ used as the developer support) $\leqq 1.5$; and

wherein said developer is a nonmagnetic one-component developer.

10. (Amended) a color image formation method according to claim 9, wherein a mixture of first particles having a mean particle diameter of 30 to 100 nm and second particles having a mean particle diameter smaller than ~~the former~~ that of the first particles is used as said external additive.